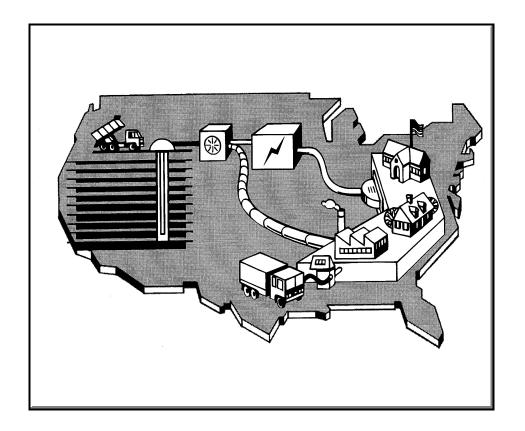


Landfill Gas-to-Energy Project Opportunities

Landfill Profiles for the State of Nebraska





EPA Landfill Methane Outreach Program



The EPA Landfill Methane Outreach Program, a key component of the United State's *Climate Change Action Plan*, encourages the use of landfill gas (LFG) as an energy resource. EPA assists utilities,

municipal and private landfill owners and operators, tribes, and state agencies in reducing methane emissions from landfills through the development of profitable landfill energy recovery projects. Methane captured from landfills can be transformed into a cost-effective fuel source for electricity, heat, boiler and vehicular fuel, or sale to a pipeline. EPA estimates there are approximately 200 landfill methane recovery projects in the U.S. and that up to 750 landfills could install economically viable landfill energy projects.

The Landfill Methane Outreach Program includes five important components: the State Ally, Energy Ally, Industry Ally, Community Partner, and Endorser programs. EPA establishes separate alliances with state agencies, energy providers (including investor-owned, municipal and other public power utilities and cooperatives), key trade and public sector associations, members of the landfill gas development industry (including developers, engineers, equipment vendors, and others) and local communities, municipalities and landfill owner/operators through a Memorandum of Understanding (MOU). By signing the MOU, each Ally/Partner acknowledges a shared commitment to the promotion of landfill gas-to-energy recovery at solid waste landfills, recognizes that the widespread use of landfill gas will reduce emissions of methane and other gases, and commits to undertake activities to enhance development of this resource. In return, EPA agrees to provide landfill gas-to-energy project assistance and public recognition of the Allies' and Partners' participation in the program.

Introduction

Since 1994 the U.S. EPA's Landfill Methane Outreach Program (LMOP) has participated in an ongoing effort to gather information on Municipal Solid Waste landfills (MSW). A key component of the LMOP is to provide MSW landfill owners and operators, project developers, utilities, and other potential project participants with information on MSW landfills that may offer attractive energy development opportunities. This document presents state specific landfill information, hereinafter referred to as the landfill profiles. These profiles are useful to evaluate the potential for developing landfill gas-toenergy projects (LFGTE). EPA assembled this information from state and local sources as well as various national solid waste publications, landfill owners and operators, and project developers.

The EPA has prepared a separate document to describe the methodology used to develop the state-specific landfill profiles and estimate the benefits of using LFGTE as an energy source. The document, Landfill Gas-to-Energy Project Opportunities, Background Information on Landfill Profiles, contains background information on gas collection and use, describes the data fields according to the five sections listed on the landfill profiles, and where applicable, illustrates calculations and default values used to derive estimates. EPA strongly recommends that users read the document prior to using the landfill profiles. Users can obtain the document by calling the LMOP hotline at 1-888-STAR-YES.

Data Sources

- EPA-ORD Landfill Gas Utilization-Survey (Thorneloe, 1997)
- Directory and Atlas of Solid Waste Disposal Facilities (SWA, 1994)
- Implementation Guide for Landfill Gas Recovery Projects in the Northeast (SCS, 1994)
- Landfill Gas-to-Energy 1994-1995 Activity Report (SWT, 1994)
- Methane Recovery from Landfill Yearbook (GAA, 1994)
- · Project developers, landfill owners, and operators
- · State and local records
- · Survey of Landfill Gas Generation Potential (EPRI, 1992)
- U.S. Landfill Directory (SWANA, 1992)

Landfill Classification

To facilitate the use of available landfill information, EPA has categorized the landfills into five categories: Current Project, ¹ Candidate Project, Shutdown, Other, and Unknown waste-in-place (WIP). These categories are based on the status of the landfill's LFGTE project(s) and WIP. The generation of methane is a function of many factors, the most critical being the amount of waste-in-place and the number of years the waste has been in the landfill. Peak methane generation occurs soon after closure; therefore, the longer the landfill has been closed, the less attractive it becomes for methane recovery. Based on the general timing of peak methane generation, EPA assumes that landfills that ceased accepting waste prior to 1993 have a low probability of generating enough methane to make a gas recovery project economical. Consequently, landfills need to be operating in 1993 to be considered as having a Candidate Project.

Landfill Categorizes

Current Project:

 Landfill with operational LFGTE project or landfill with LFGTE project under construction.

Candidate Project:

- Landfill with a potential or planned LFGTE utilization project; or
- Landfill is currently operating or closed after 1993; and has more than 1,000,000 tons of municipal solid waste-inplace.²

Shutdown:

· Landfill with shutdown LFGTE project.

Other

 Landfill has less than 1,000,000 tons of municipal solid waste-in-place with no current or planned LFGTE project.

Unknown WIP:

 Landfill with insufficient data to determine the waste-inplace

State Summary

State-specific landfill profile information is summarized in three exhibits. Exhibit 1 presents a summary of the state-specific potential for LFG utilization energy by landfill category. Exhibit 2 summarizes the emissions avoided by fossil fuel displacement for electricity generation and direct use projects. Exhibit 3 presents an index of the state-specific MSW landfills, referenced by category, landfill name and general characteristics.

² By modeling the relationship between WIP and methane generation, a cut-off of 1,000,000 tons of WIP was established; landfills having at least 1,000,000 tons of WIP are considered candidate landfills.



¹ Current projects illustrate the wide range of successful project development options.

Exhibit 1: Nebraska MSW Landfill Summary

Category	No. of	Est. Capacity Potential		Est. CH4	Methane F		CO2 Equivalent of CH4 Reduction (tons/yr)		
	Landfills	Electricity (MW)	Gas Capacity (mmBtu/hr)	Generation (mmscf/d)	(tons/yr)				
					Potential	Current	Potential	Current	
Candidate	6	16	159	5	29,482	0	619,120	0	
Other	16	8	82	3	15,105	0	317,195	0	
Unknown WIP	2								
Total	24	24	241	8	44,586	0	936,314	0	

Exhibit 2: Potential Nebraska Emissions Avoided by Fossil Fuel Displacement

Category	Electricity Generation Project						Direct Use Project					
	CO2 (tons/yr)		sc)2 (tons/	yr)	CC	02 (tons/	yr)	SO2 (tons/yr)			
	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas
Candidate	125,495	103,001	69,259	793	663	0	88,780	72,867	48,997	808	425	1
Other	65,510	53,767	36,154	414	346	0	45,485	37,333	25,103	414	218	0
Unknown WIP												
Total	191,005	156,768	105,413	1,207	1,009	0	134,266	110,199	74,099	1,221	642	1

Exhibit 3: Index of Landfills in Nebraska

Category	Landfill Name		WIP		Landfill	LFG Collected	LFG	Status of LFGTE
		<2.5 million 2.5 to 4 million tons		>4 million tons	Operating in 1998		Utilization Project	Project
Candidate	Community Refuse Disposal, Incorpora	✓						Unknown
Candidate	Douglas County LF			✓	✓			Unknown
Candidate	L.P. Gill LF	✓			✓			Unknown
Candidate	Lincoln Bluff Road LF	✓			✓			Unknown
Candidate	Norfolk Landfill							Potential
Candidate	Sarpy County LF	✓			✓			Unknown
Other	Alliance Disposal Area LF	✓			✓			Unknown
Other	Beatrice Disposal Area LF	✓			✓			Unknown
Other	Butler County LF	✓						Unknown
Other	Community Refuse Disposal, Incorpora	✓						Unknown
Other	G&P Development, Incorporated LF	✓			✓			Unknown
Other	Grand Island LF	✓			✓			Unknown
Other	Hastings Department of Health LF	✓			✓			Unknown
Other	Holdrege Disposal Area LF	✓			✓			Unknown
Other	Kearney LF #1	✓			✓			Unknown
Other	Kearney LF #2	✓						Unknown
Other	NNSWC LF	✓			✓			Unknown
Other	North Platte Disposal Area LF	✓						Unknown
Other	Otoe County LF	✓						Unknown
Other	Plattsmouth LF	✓						Unknown
Other	Scottsbluff Disposal LF	✓						Unknown
Other	York County LF	✓			✓			Unknown
Unknown WIP	J-Bar-J Land, Incorporated LF							Unknown
Unknown WIP	Nebraska Ecology Systems, Incorporat							Unknown

			unity Refuse Disposal, I	-		Landfill Category	: Candidate
		A. G	ENERAL LANDFILL	INFORMAT	ION		
Landfill Owner:	Commu	unity Refuse Dis	posal	Annual Accept	tance Rate ((tons):	53,269
Landfill Owner Type						Rate Reported:	
Alternative Landfill N	Name:			Design Capaci		1,882,064	
City:	Fremon			Acres Currentl	d (acres):	160	
County:	Madiso	n		Average Depth			
State:	NE			Waste-in-Place	` ′		1,446,633
Year Open:	1969		ل	1998 Waste-in	-Place (ton.	s):	1,446,633
Year Closed:	1995	1	B. LANDFILL GAS CO	OLL FCTION			
Ed all de C	· · · ·		D. LANDFILL GAS CO				
Estimated Methane G	· · · · · · · · · · · · · · · · · · ·	f/d):		0.79			
LFG Collection Syste Current LFG Collecte				N.A.			
Collection and Treatr	,	sinad Undan NCI	OC/EC.	No			
Conection and Treati	nent System Keqt		C. LANDFILL GAS UT		[
Current Utilization:			OLEMAN CONTRACTOR				
Utilization Syste	om Status	Unknown					
Utilization Syste		Unknown					
Utilization Syste		Ulikilowii					
Electric Utility F							
Natural Gas Pro							
Energy Purchase	* *						
Energy Furchase	51(8).						
Capacity:		Electrici	ty Generation Project (N	IW) ()R	Direct Use Project (mmBtu/h	nr)
Estimated Poten	tial Capacity:			3			25
Current Capacity	y:						
Planned Capacit	y:						
Utilities in County:		Battle Creek	Munic Light & Power I	Dept; Elkhorn	Rural Publi	c Pwr Dist; Madison Municipa	l Light &
		D. ENVII	RONMENTAL BENEF	ITS OF UTII	LIZATION	1	
			Po	tential		Current	
Methane Reduction (tons/yr):				4,556		0
CO2 Equivalent of C	H4 Reduction (to	ns/yr):			95,674		0
Emissions Ausided by	. Fossil Evol Diss	.1	Electricity Gen	anation Dusies	.4	Dinast Use Pusie	
Emissions Avoided by	y Fossii Fuei Disp	насетені:	CO2 (tons/yr)	eranon Projec SO2 (toi		Direct Use Project CO2 (tons/yr) Se	02 (tons/yr)
				302 (101			
		Coal:	19,732		125	13,720	125
		Fuel Oil:	16,195		104	11,260	66
	N	atural Gas:	10,890		0	7,572	0
			E. CONTACT INFO	RMATION			
		Landfill	Owner			Landfill Operator	
Contact Name:	Roger Detman			Pat La	Rue		
Mailing Address:	P.O. Box 462			P.O. I	3ox 462		
Dhone Nivert							
Phone Number:	(402) 721-7511	l		(402)	721-7511		
Fax Number:	(402) 721-3695	5		(402)	721-3695		
* Itallicized indicates	values estimated	by EPA.	De	cember 5, 199	8	State: NE Page	e: 1

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			Douglas Co	ounty LF		Landfill Categor	ry: Candidate		
		A. GE	NERAL LANDFIL	-	TION	, ,	· · · · · ·		
Landfill Owner:	WMI			Annual Acc	eptance Rate (t	tons):	609,051		
Landfill Owner Type:				Year Annua	Rate Reported:				
Alternative Landfill N	lame: Waste	Management of N	ebraska LF	Design Capa		2,399,520			
City:	Bennin	gton		Acres Curre	ntly Landfilled	l (acres):	63		
County:	Dougla	ıs		Average De	pth (feet):				
State:	NE			Waste-in-Pl	Waste-in-Place (tons): 5,434,44				
Year Open:	1989			1998 Waste	in-Place (tons):	5,434,449		
Year Closed:	2007								
		В	LANDFILL GAS	COLLECTIO	N				
Estimated Methane G	eneration (mmsc	f/d):		1.81					
LFG Collection Syste	m Status:			N.A.					
Current LFG Collecte	d (mmscf/d):								
Collection and Treatm	nent System Requ			No					
		C	. LANDFILL GAS	UTILIZATIO	ON				
Current Utilization:									
Utilization Syste	m Status:	Unknown							
Utilization Syste	m Type:	Unknown							
Utilization Syste	m Start Year:								
Electric Utility P	rovider(s):								
Natural Gas Prov	vider(s):								
Energy Purchase	r(s):								
Capacity:		Electricity	y Generation Project	(MW)	OR	Direct Use Project (mmBtu	ı/hr)		
Estimated Potent	tial Capacity:			6			57		
Current Capacity	7:								
Planned Capacity	y:								
Utilities in County:		Omaha Dubli	Power District; We	starn Aran Dox	vor Admin				
Othities in County.									
		D. ENVIR	ONMENTAL BEN	EFITS OF UT	TLIZATION				
				Potential		Current			
Methane Reduction (to	- ·				10,453		0		
CO2 Equivalent of CI	H4 Reduction (to	ns/yr):			219,515		0		
Emissions Avoided by	Fossil Fuel Disi	placement:	Electricity G	Generation Pro	iect	Direct Use Proj	iect		
2missions rivolaca by	1 ossii 1 iici Disp	succentent.	CO2 (tons/yr)	_	tons/yr)		SO2 (tons/yr)		
		Coal:	44,200		279	31,478	286		
		Fuel Oil:	36,27	7	234	25,836	151		
	N	latural Gas:	24,393	3	0	17,372	0		
			E. CONTACT INI	FORMATION					
		Landfill C	wner			Landfill Operator			
Contact Name:	Tom Franke			Tor	n Franke				
Mailing Address:	9710 Cornhusl	zer Road		071	0 Cornhusker	Road			
ivianing Address:	7/10 Commusi	NO NOAU		9/1	o Commusker	Nodu			
Dhona Numbar	(402) =2: :::	0			a) #a1 a1==				
Phone Number:	(402) 731-013	8		(40	2) 731-0138				
Fax Number:									

* Itallicized indicates values estimated by EPA.

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State: NE

			L.P. Gill LF			Landfill Cate	porv.	Candidate
		A. G]	ENERAL LANDFILL INF	ORMATI	ON	Lunujui Cale,	501 y.	Candidate
Landfill Owner:	L.P. Gil				ance Rate (tor	ne).		167,389
Landfill Owner Type:	L.I . OII	11		-	cceptance Rat			107,309
Alternative Landfill N	ame:				•	ic Reported.		7,198,560
	ame. Jackson			Design Capacity (tons): Acres Currently Landfilled (acres):				
City:	Dakota			-		actes).		150
County:				age Depth te-in-Place				2 202 240
State:	NE 1001				` ′			2,292,240
Year Open:	1981		1998	Waste-ın-	Place (tons):			2,292,240
Year Closed:	2020	Ţ	3. LANDFILL GAS COLL	FCTION				
Estimated Median Co			CENTIFIED GIRD COLL					
Estimated Methane Ge	-	f/a):		1.00				
LFG Collection System				N.A.				
Current LFG Collected								
Collection and Treatm	ent System Requ			No				
			C. LANDFILL GAS UTIL	ZATION				
Current Utilization:								
Utilization Syster		Unknown						
Utilization Syster	n Type:	Unknown						
Utilization Syster	n Start Year:							
Electric Utility Pr	rovider(s):							
Natural Gas Prov	ider(s):							
Energy Purchaser	r(s):							
Capacity:		Flectricit	ty Generation Project (MW)	0	R I	Direct Use Project (mml	Rtu/hr)
		Licetiei	y denotation i roject (WW)			oneet ose i rojeet (iiiiii	Jtu/III	
Estimated Potenti				3				31
Current Capacity:								
Planned Capacity	:							
Utilities in County:		Dakota City	Electric Dept; Nebraska Pub	lic Power	District; Nort	heast Nebraska Rural P	P D;	South S
		D. ENVIR	ONMENTAL BENEFITS	OF UTIL	IZATION			
			Potent	ial		Currei	nt .	
Methane Reduction (to	ne/vr):		1 Oteni	· · · ·	5,806	Curren	11	0
CO2 Equivalent of CH	- ·	achr).		1	21,934			0
CO2 Equivalent of CII	4 Keauction (tor	us/ yr).		1	21,934			
Emissions Avoided by	Fossil Fuel Disp	placement:	Electricity Generat	ion Project	t	Direct Use P	roject	
			CO2 (tons/yr)	SO2 (ton	s/yr)	CO2 (tons/yr)	SO	2 (tons/yr)
		Coal:	24,468		155	17,485		159
		Fuel Oil:	20,082		129	14,351		84
	M	atural Gas:	13,503		0	9,650		0
	140	aiurai Gas.		ATION		9,030		
		Landfill (E. CONTACT INFORM	ATION		Landfill Operator		
Contact Name:	1.031	Landini	Jwhei		1.0311	Landini Operator		
Contact Ivallie.	Leonard Gill			Leona	ra Gill			
Mailing Address:	P.O. Box 126			P.O. B	ox 126			
Phone Number:		_						
	(402) 632-4238	3		(402)	532-4238			
Fax Number:	(402) 632-9254	1		(402)	532-9254			
	•							

* Itallicized indicates values estimated by EPA.



			Lincoln Bluff Roa	ıd LF		Landfill Cat	egory:	Candidate
		A. GE	NERAL LANDFILL IN	FORMATIO	N			
Landfill Owner:	City of	Lincoln	An	nual Acceptan	ce Rate (tor	ns):		252,915
Landfill Owner Type:	City of			ear Annual Acc				202,510
Alternative Landfill N	ame: Bluff R	Road LF		sign Capacity	-		1	0,558,758
City:	Lincolr			eres Currently 1		acres):	-	171
County:	Lancas			verage Depth (1				1,1
State:	NE			aste-in-Place (1				1,271,527
Year Open:	1993			98 Waste-in-P				1,271,527
Year Closed:	2018		17	o waste-in-1	idee (ions).			1,2/1,32/
Tear Closed.	2010	В.	LANDFILL GAS COL	LECTION				
Estimated Methane Ge	eneration (mmsc			0.74				
LFG Collection System		<i>y</i> , <i>a</i>).		N.A.				
Current LFG Collected				IV.A.				
Collection and Treatm		uired Under NSPS	L/F.C·	No				
Conection and Treating	eni System Keqi		. LANDFILL GAS UTI					
G TUIL I			LANDFILL GAS CIT	LIZATION				
Current Utilization:	G.							
Utilization System		Unknown						
Utilization System	• •	Unknown						
Utilization System								
Electric Utility Pr								
Natural Gas Prov	* *							
Energy Purchases	r(s):							
Capacity:		Electricity	Generation Project (MW	V) OR	Γ	Direct Use Project (mn	nBtu/hr)
	ial Capacity:	Electricity	Generation Project (MW		Γ	Direct Use Project (mn	nBtu/hr	
Estimated Potent		Electricity	Generation Project (MW	OR 2	Γ	Direct Use Project (mn	nBtu/hr	23
Estimated Potent Current Capacity	:	Electricity	Generation Project (MW		Ω	Direct Use Project (mn	nBtu/hr	
Estimated Potent Current Capacity Planned Capacity	:		-	2				23
Estimated Potent Current Capacity Planned Capacity	:		Generation Project (MW	2				23
Estimated Potent Current Capacity Planned Capacity	:	Hickman Elec	-	2 ic System; Net	oraska Publi			23
Estimated Potent Current Capacity	:	Hickman Elec	etric Dept; Lincoln Electr	2 ic System; Net	oraska Publi		ris Publi	23
Estimated Potent Current Capacity Planned Capacity Utilities in County:	:	Hickman Elec	etric Dept; Lincoln Electr ONMENTAL BENEFII	2 ic System; Net TS OF UTILIZ ntial	oraska Publi	c Power District; Norn	ris Publi	23
Estimated Potent Current Capacity Planned Capacity Utilities in County:	: /: ons/yr):	Hickman Elec	etric Dept; Lincoln Electr ONMENTAL BENEFII	2 ic System; Net TS OF UTILIZ ntial	oraska Publi ZATION	c Power District; Norn	ris Publi	23
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): 14 Reduction (to	Hickman Elec D. ENVIR ns/yr):	etric Dept; Lincoln Electri ONMENTAL BENEFII Poten	2 ic System; Net TS OF UTILIZ ntial	oraska Publi ZATION 4,297	c Power District; Norn Curre	ris Publi ent	23 ic Powe 0 0
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): 14 Reduction (to	Hickman Elec D. ENVIR ns/yr):	etric Dept; Lincoln Electric ONMENTAL BENEFII Poten Electricity General	2 ic System; Net TS OF UTILIZ ntial gation Project	Draska Public ZATION 4,297 0,237	c Power District; Norn Curre Direct Use	ris Publi ent <i>Project</i>	ic Powe 0 0
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): 14 Reduction (to	Hickman Elec D. ENVIR ns/yr):	etric Dept; Lincoln Electri ONMENTAL BENEFII Poten	2 ic System; Net TS OF UTILIZ ntial	Draska Public ZATION 4,297 0,237	c Power District; Norn Curre	ris Publi ent <i>Project</i>	23 ic Powe 0 0
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): 14 Reduction (to	Hickman Elec D. ENVIR ns/yr):	etric Dept; Lincoln Electric ONMENTAL BENEFII Poten Electricity General	2 ic System; Net TS OF UTILIZ ntial general sectors of the sec	Draska Public ZATION 4,297 0,237	c Power District; Norn Curre Direct Use	ris Publi ent <i>Project</i>	ic Powe 0 0
Estimated Potent Current Capacity Planned Capacity Utilities in County:	: ons/yr): 14 Reduction (to	Hickman Elector D. ENVIRO (September 1987): Discontinuous (Coal: 1988)	Electricity General CO2 (tons/yr) 18,153	2 ic System; Net TS OF UTILIZ ntial general sectors of the sec	Draska Public ZATION 4,297 D,237 (yr)	C Power District; Norm Curre Direct Use CO2 (tons/yr) 12,940	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): I4 Reduction (to Fossil Fuel Disp	Hickman Elect D. ENVIRO ns/yr): placement: Coal: Fuel Oil:	Electricity General CO2 (tons/yr) 18,153 14,899	2 ic System; Net TS OF UTILIZ ntial general sectors of the sec	2ATION 4,297 0,237 2yr) 15 96	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): I4 Reduction (to Fossil Fuel Disp	Hickman Elec D. ENVIRO ns/yr): placement: Coal: Fuel Oil: latural Gas:	Etric Dept; Lincoln Electric ONMENTAL BENEFIT Potes Electricity General CO2 (tons/yr) 18,153 14,899 10,019	2 ic System; Net TS OF UTILIZ ntial gi ation Project SO2 (tons/	Draska Public ZATION 4,297 D,237 (yr)	C Power District; Norm Curre Direct Use CO2 (tons/yr) 12,940	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to	: ons/yr): I4 Reduction (to Fossil Fuel Disp	Hickman Elect D. ENVIRO ns/yr): placement: Coal: Fuel Oil: Jatural Gas:	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial gi ation Project SO2 (tons/	2ATION 4,297 0,237 2yr) 15 96	Currence District; Norman Direct Use CO2 (tons/yr) 12,940 10,620 7,141	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE Emissions Avoided by	: ons/yr): I4 Reduction (to Fossil Fuel Disp	Hickman Elec D. ENVIRO ns/yr): placement: Coal: Fuel Oil: latural Gas:	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial gi ation Project SO2 (tons/	2ATION 4,297 0,237 2yr) 15 96	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE Emissions Avoided by	: ons/yr): I4 Reduction (to Fossil Fuel Disp	Hickman Elect D. ENVIRO ns/yr): placement: Coal: Fuel Oil: Jatural Gas:	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial gi ation Project SO2 (tons/	2ATION 4,297 0,237 15 96 0	Currence District; Norman Direct Use CO2 (tons/yr) 12,940 10,620 7,141	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Current Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE	: ons/yr): H4 Reduction (tol	Hickman Electory D. ENVIRO ns/yr): coal: Fuel Oil: latural Gas: Landfill O	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial ation Project SO2 (tons/	2ATION 4,297 0,237 15 96 0	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620 7,141 Landfill Operator	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE Emissions Avoided by Contact Name:	: ons/yr): H4 Reduction (ton Fossil Fuel Disp N Steve Owen	Hickman Electory D. ENVIRO ns/yr): coal: Fuel Oil: latural Gas: Landfill O	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial ation Project SO2 (tons/	2ATION 4,297 0,237 15 96 0	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620 7,141 Landfill Operator	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE Emissions Avoided by Contact Name: Mailing Address:	cons/yr): 14 Reduction (to) Fossil Fuel Disp N Steve Owen 2400 Theresa S	Hickman Electory D. ENVIRO D. ENVIRO ns/yr): placement: Coal: Fuel Oil: latural Gas: Landfill O Street, D.P.W.	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial ation Project SO2 (tons/ 1 MATION Steve Or 2400 Th	praska Public ZATION 4,297 0,237 15 96 0 wen eresa Street	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620 7,141 Landfill Operator	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62
Estimated Potent Current Capacity Planned Capacity Planned Capacity Utilities in County: Methane Reduction (to CO2 Equivalent of CE Emissions Avoided by Contact Name:	: ons/yr): H4 Reduction (ton Fossil Fuel Disp N Steve Owen	Hickman Electory D. ENVIRO Ins/yr): Coal: Fuel Oil: Iatural Gas: Landfill O Street, D.P.W.	Electricity General CO2 (tons/yr) 18,153 14,899 10,019 E. CONTACT INFORM	2 ic System; Net TS OF UTILIZ ntial ation Project SO2 (tons/	Draska Public ZATION 4,297 (2),237 (2)	Curre Curre Direct Use CO2 (tons/yr) 12,940 10,620 7,141 Landfill Operator	ris Publi ent <i>Project</i>	23 ic Powe 0 0 2 (tons/yr) 118 62

^{*} Itallicized indicates values estimated by EPA.

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			NT C 11 T 1011			1 1011 0	G PL
		A (C)	Norfolk Landfill		ON	Landfill Category.	Candidate
		A. G.	ENERAL LANDFILL INFO)KMAT10	UN		
Landfill Owner:	Allied '	Waste Industries	Annua	al Accepta	ance Rate (tons)):	
Landfill Owner Type:	Private		Year A	Annual Ac	cceptance Rate	Reported:	1998
Alternative Landfill Na	ame:		Desig	n Capacity	y (tons):		
City:	Norfoll	ζ	Acres	res):			
County:			Avera				
State:	NE		1998				
Year Open:			1998	Waste-in-l	Place (tons):		
Year Closed:							
		I	B. LANDFILL GAS COLLE	ECTION			
Estimated Methane Ge	neration (mmsc	f/d):					
LFG Collection System		<i>j, u)</i> .					
Current LFG Collected							
Collection and Treatme		uirad Undar NSD	S/EC.	No			
Confection and Treatme	ent System Requ		C. LANDFILL GAS UTILIZ				
		•	LANDFILL GAS UTILIZ	LATION			
Current Utilization:							
Utilization Systen	n Status:	Potential					
Utilization Systen	n Type:	Unknown					
Utilization Systen	n Start Year:						
Electric Utility Pro	ovider(s):						
Natural Gas Provi	der(s):						
Energy Purchaser	(s):						
			a				
Capacity:		Electrici	ty Generation Project (MW)	Ol	K Dii	rect Use Project (mmBtu/h	r)
Estimated Potenti	al Capacity:						
Current Capacity:							
Planned Capacity:	:						
Utilities in County:							
		D. ENVIR	CONMENTAL BENEFITS	OF UTIL	IZATION		
			Potentia	ı1		Current	
Methane Reduction (to	ns/vr)·		1 Otentio			Current	
CO2 Equivalent of CH	= '	nc/vr)·					
CO2 Equivalent of CIF	4 Reduction (to	113/ y1).					
Emissions Avoided by	Fossil Fuel Disp	olacement:	Electricity Generation	on Project		Direct Use Projec	rt
•	_		CO2 (tons/yr)	SO2 (tons	s/yr)		02 (tons/yr)
		G 1				, , ,	, ,
		Coal:					
		Fuel Oil:					
	λ	atural Gas:					
		annai Gas.	- GOVERN GENTROPIA	mrosi			
		7 10111	E. CONTACT INFORMA	TION		1011 0	
		Landfill (Owner		I	andfill Operator	
Contact Name:							
Mailing Address:							
DI NI I							
Phone Number:							
Fax Number:							

* Itallicized indicates values estimated by EPA. December 5, 1998 State: NE Page: 5



			Sarpy County LF			Landfill Category:	Candidate
		A. G	ENERAL LANDFILL INFO	DRMATION			
Landfill Owner: Landfill Owner Type:	Sarpy C	County		al Acceptance F	Rate (tons):	red:	172,234
Alternative Landfill N	ame:			n Capacity (ton	-	leu.	2,923,013
City:	anic. Papillio	nn	-	Currently Land			160
County:	Sarpy	,11		ge Depth (feet)			100
State:	NE			e-in-Place (tons			1,320,587
Year Open:	1990			Waste-in-Place			1,320,587
Year Closed:	2008		1770	wasie in 1 iace	(tons).		1,520,507
		I	B. LANDFILL GAS COLLE	ECTION			
Estimated Methane Ge	eneration (mmscj	f/d):	(0.76			
LFG Collection System	n Status:		ľ	N.A.			
Current LFG Collected	d (mmscf/d):						
Collection and Treatm		uired Under NSP	S/EG:	No			
			C. LANDFILL GAS UTILIZ	ZATION			
Current Utilization: Utilization Syster Utilization Syster Utilization Syster Electric Utility Pr Natural Gas Prove Energy Purchaser	n Type: n Start Year: rovider(s): ider(s):	Unknown Unknown					
Capacity:		Electrici	ty Generation Project (MW)	OR	Direct Us	e Project (mmBtu/h	r)
Estimated Potenti Current Capacity: Planned Capacity	:			2			24
Utilities in County:		Omaha Publ	ic Power District; Western Ar	ea Power Adm	in		
		D. ENVIR	RONMENTAL BENEFITS	OF UTILIZAT	TION		
			Potentia	ıl		Current	
Methane Reduction (to	ons/vr):			4,37	0		0
CO2 Equivalent of CH	• .	ns/vr):		91,76			0
		-	El			D: (II D :	
Emissions Avoided by	Fossii Fuei Disp	placement:	Electricity Generation CO2 (tons/yr)	SO2 (tons/yr)	CO2	Direct Use Project (tons/yr) SC	t 92 (tons/yr)
		Coal:	18,943	120	602	13,158	120
		Fuel Oil:	15,547	100		10,800	63
	3.7	atural Gas:					
		aturat Gas:	10,454	0		7,262	0
		Landfill (E. CONTACT INFORMA	ATION	Landfill	l Operator	
Contact Name:	Dwayne Brigm			Dwayne Bri		Parmor	
Mailing Address:	1210 Golden G	Sate Drive		1210 Golder	n Gate Drive		
Phone Number:	(402) 253-2371	1		(402) 253-23	371		
Fax Number:	(402) 253-2713			(402) 253-27			
- un i (unii)()()	(+02) 233-2/13	, 		(402) 233-2	, 10		

* Itallicized indicates values estimated by EPA. December 5, 1998 State: NE Page: 6

